

## Personalized Medicine in Real Time

*We can deliver on the promise of personalized medicine, through a bold new endeavor called BIG Health Consortium™.*

### The Time is Now

Excitement has been building up around the concept of personalized medicine for years. We've all heard the promise: a new era, in which medicine is preemptive, predictive, and patient-participatory. Certainly, the science has been exploding, as dozens of biomarker-disease linkages are identified. Diagnostic/pharmaceutical “theranostics” are emerging. Policy makers know that regulatory and reimbursement systems have to change. An increasing number of academic medical centers and health care providers are reconfiguring their organizations and systems, defining what's needed to deliver truly personalized care. And in the background, it's impossible to ignore the triple threat of aging baby boomers, rising health care costs, and looming cancer statistics that make achievement of personalized medicine so urgent.

*Still, no systematic, national endeavor exists to connect all the requisite constituencies and capabilities together into a seamless, networked process to demonstrate the feasibility and value of this new model for health care.*

### What We Can Do

The BIG Health Consortium™ is a collaboration comprised of key stakeholders in health care: patients, providers, payers, product innovators, advocates, investors, and information technologists. Conceived by the National Cancer Institute, its mission is to show—in real settings, in real time—how and why personalized medicine works. Through a series of demonstration projects, BIG Health will model a new approach in which clinical care, clinical research, and scientific discovery are linked. The key enabler for such “linkage” is the informatics infrastructure that NCI has *already* developed for cancer, known as caBIG® (cancer Biomedical Informatics Grid).

### Successfully Linking Disparate Communities

caBIG® has already demonstrated that it can link the world of cancer research through the “electronic glue” of its interoperable tools and technology. NCI's designated Cancer Centers and Community Cancer Centers are now adopting or adapting caBIG® infrastructure in order to achieve connectivity within their four walls, and among each other. But caBIG® isn't limited to cancer—it's an infrastructure that can be expanded and applied to other diseases, to other countries, and to providing “the essential unity of basic and translational science”<sup>1</sup> that characterizes the 21<sup>st</sup> century biomedical enterprise. Hence, caBIG® is becoming “BIG” (Biomedical Informatics Grid) for this new Consortium.

### Who's Joining BIG Health

Organizations from diverse sectors of the healthcare enterprise have already expressed the desire to join the BIG Health Consortium™. Among them are cancer centers; integrated providers; academic centers; medical schools; diagnostics labs; personal genomics firms; patient advocacy and think-tank organizations; venture capitalists; and others.

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<sup>1</sup> “The Nation's Investment in Cancer Research: Connecting the Cancer Community”, An Annual Plan and Budget Proposal for FY 2009, National Cancer Institute, page 7

## What's In It for You

For each stakeholder, there's a major benefit. Here are a few that participants have identified:

- Patient advocates see a faster path to new, more effective treatments.
- Community cancer centers see increased participation in clinical research, and screening programs to lessen cancer disparities.
- Academic centers see a way to integrate clinical and discovery research and improve research productivity.
- Health care providers see a way to achieve the 'rapid learning system' that connects clinical outcomes to clinical research to discovery in a seamless continuum.
- Diagnostic firms see a way to substantiate the critical role of molecular diagnostics in the health care equation.
- Personal genomics firms see a way to be tethered to the health care enterprise.
- Pharmaceutical innovators see access to an easily accessible "cohort" of genetically sub-grouped patients for clinical research.
- IT providers see a growing need for their products and services to underpin information-based medicine.
- NCI sees fulfillment of its core mission – to eliminate suffering and death from cancer – and delivering on its commitment to "ushering personalized cancer medicine in as rapidly as possible."

## How Your Organization Can Get Involved

The BIG Health Consortium™ is launching in September 2008. Initial priorities are to define on-line strategies for working collaboratively, and to identify Demonstration Projects for implementation as rapidly as possible. We invite academic, advocacy, government, and commercial organizations to participate in the BIG Health Consortium™. Please visit the BIG Health website ([www.BIGHealthConsortium.org](http://www.BIGHealthConsortium.org)), join the mailing list, and participate in blogs and all interactive forums. If you have questions, please contact us at 617-761-6765 or [mail@bighealthconsortium.org](mailto:mail@bighealthconsortium.org).